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The Honorable John D. Dingell
Chairman, House Energy and Commerce Committee
U.S. House of Representatives
2328 Rayburn House Office Building
Washington, DC 20515-2215

The Honorable Rick Boucher
Chairman, Energy and Air Quality Committee
U.S. House of Representatives
2187 Rayburn House Office Building
Washington, DC 20515-4609

Dear Chairmen Dingell and Boucher:

BP welcomes the opportunity to respond to your questions on crafting climate change legislation. We commend members and staff of the House Energy and Commerce Committee for their continued efforts to address the climate change issue and to encourage input and dialogue.

BP America is the organizational arm of BP plc that owns and operates the US assets formerly owned by our predecessor companies British Petroleum, Amoco, Arco, Vastar, and Burmah Castrol. While BP plc is based in London, 45% of our assets and employees are in the United States, and we are the US's largest producer of oil and gas. In addition, BP America participated in the development of and fully supports the comments furnished to you by the US Climate Action Partnership (US CAP).

BP supports a precautionary approach toward climate change, even though we recognize that the understanding of climate science is incomplete. BP believes that the U.S. should adopt a mandatory national policy at the federal level to reduce US greenhouse gas (GHG) emissions. This program should:

- 1) create economic opportunity through the power of markets and the structure of a clear regulatory framework;
- 2) be environmentally effective by producing real GHG reduction that put us on a path to climate stabilization;

3) be as fair as possible to all economic sectors, geographic regions, and income groups; and,

4) recognize the near- and long-term importance of technology and the need to stimulate private investment in research development & deployment.

BP offers the following comments to your inquiry to better understand the relevant issues associated with climate change as you move forward to develop legislation. We would be happy to have further detailed discussions with you on any of these responses.

Question 1: Please outline which issues should be addressed in the Committee's legislation, how you think they should be resolved, and your recommended timetable for Congressional consideration and enactment. For any policy recommendations, please address the impacts you believe the relevant policy would have on:

- (a) emissions of greenhouse gases and the rate and consequences of climate change; and*
- (b) the effects on the U.S. economy, consumer prices, and jobs.*

BP believes that U.S. legislation should be designed to achieve the goal of limiting global atmospheric greenhouse gas (GHG) concentrations to a level between 450-550 parts per million (ppm) by 2050, which in accordance with the Intergovernmental Panel on Climate Change (IPCC) Assessment Reports will limit large-scale adverse climate change impacts. These goals/targets should be updated to reflect the analysis of the 4th Assessment Report when those results are made available. Congress should establish a mandatory emission reduction pathway with specific short-term, mid-term, and long-term targets. This will also contribute to creating an enduring price signal on carbon that will promote investment in new technology.

We believe that climate change legislation must be economy-wide to establish a carbon price broadly and uniformly across the economy and should be enacted as quickly as possible. BP supports the use of a mandatory Cap & Trade program. A cap and trade mechanism provides certainty of the environmental outcome, allows participants to minimize costs, stimulates the search for additional emission reduction opportunities, and is capable of better facilitating international coordination. This U.S. system should be compatible with existing and developing GHG trading systems to facilitate the creation of a global market.

Wherever possible we believe that the physical point of emission should be the regulated entity, because this removes the possibility that the carbon price signal is disrupted by imperfections in the supply chain. We fully accept that the transport sector should experience the same economic signals as all other sectors in the economy. However, this does not mean that the transport sector need necessarily be an integral part of the carbon pricing system for the rest of the economy. Policy measures to reduce CO₂ emissions from the road transport sector should be considered within an overall sustainable transport policy framework and should consider the three well established levers: Demand management, Vehicle standards and Fuel standards.

Significant reductions in emissions will only be achieved if all three levers are addressed in parallel.

The economy-wide carbon price cannot be relied upon alone to stimulate the large-scale and early deployment of new technology that is required to allow it to compete in the market. Transitional incentives will be needed to achieve new technology deployment. Governments should avoid picking technology winners – instead they should set outcome based goals, be transitional and use market forces within a simple framework to stimulate innovation (i.e. zero or low-carbon energy standards). These forces will allow winners to emerge and the level of incentives to diminish over time as technology delivers the desired benefits at lower costs.

Traditional regulation (i.e. command and control) may be required in special limited areas where the supply chain is complex and/or fragmented and other methods are not effective; for example building energy efficiency or agricultural/land-use practices.

Although it is not our preferred method, BP accepts that a carbon tax may have a legitimate part to play both in sending economy wide carbon prices and in providing specific sectoral signals. The approach should be fiscally neutral, with collected revenues redirected to develop and deploy new technology. Combined tax and incentive structures (i.e. feebates) can be a useful tool to create a strong price signal while preserving revenue neutrality.

BP also believes a public education campaign is critical to encourage behavioral changes and assist in raising energy efficiency and conservation awareness. These programs should emphasize the consumer ownership of emissions, not only from their direct activity but also from emissions associated with the goods and services that they buy.

Question 2: One particular policy option that has received a substantial amount of attention and analysis is “cap-and-trade.” Please answer the following questions regarding the potential enactment of a cap-and-trade policy:

a. Which sectors should it cover? Should some sectors be phased-in over time?

BP believes that a cap and trade program should maximize the number of sectors. If an economy-wide approach cannot be achieved all at once, then legislation should first focus on large emitters, adding in other sectors in a reasonable time frame.

b. To what degree should the details be set in statute by Congress or delegated to another entity?

Congress should set as many details as possible in statute in order to avoid a lengthy rule-making process.

c. Should the program’s requirements be imposed upstream, downstream, or some combination thereof?

In general, it is preferable to regulate as close to the point of emission as practicable. BP supports a downstream approach as the most effective policy to regulate emissions from large stationary sources. A downstream point of regulation aligns the responsibility for compliance with those who are in the best position to alter behavior and investment decisions. It avoids the potential for distortion of the carbon price signal by the supply-chain. It provides the emitter with the transparency required to manage cost impacts of the program and eliminates the complexity, additional costs, and uncertainty associated with an upstream model. A downstream point of regulation will stimulate the search for low-cost reduction opportunities and maximize rewards for appropriate action/behavior—it provides the emitter with more options to manage the cost impacts of the program than an upstream model.

There is considerable experience with a downstream point of regulation—such as the Acid Rain program—that will result in simplicity in implementation of the cap and trade program.

While BP believes a downstream model will be most effective for large, stationary sources, we are not suggesting that a downstream cap and trade system is appropriate for all sources, particularly the transport sector. An effective solution for reducing GHG emissions from the transportation sector should include market-based policy options that reflect changes to vehicle design, fuel characteristics, and consumer behavior/choices. All three pieces of the transportation sector must be addressed in order to adequately reduce emissions.

If Congress were to opt for an upstream model, policy-makers should recognize that the point of regulation does not indicate liability for the emissions. BP is fully prepared to collect taxes and administer emissions trading systems related to the emissions from the fuel that it supplies to end users, but it does so as an agent not as the polluter.

d. How should allowances be allocated? By whom? What percentage of the allowances, if any, should be auctioned? Should non-emitting sources, such as nuclear plants, be given allowances?

In the long-term BP recognizes that auctioning is the most effective method of allowance allocation, though it places a significant responsibility on government to use the proceeds wisely and thereby maintain the economic efficiency of the system. In other words, 100% of revenues must be recycled back into efforts that will produce reductions in GHG emissions. They should not be used as a way of compensating sectors or elements of society that will be impacted by GHG regulation. This will institutionalize a subsidy - if there are affected sectors then provide them with temporary assistance to allow them to adjust to the new, lower carbon world.

However, in the near-term there is no experience with such large scale auctions. It will take some time to develop this process and establish the necessary revenue recycle programs and procedures. Furthermore, there will likely be significant political pressure that favors free allocation due to concerns over program costs. That is why we support a free allocation system based on benchmarking.

Unfortunately, the data necessary to implement a benchmarking system may not be available upon implementation of a cap and trade system. That is why we would accept a free allocation system based on historic emissions (or "grandfathered emissions") in the near-term with a gradual transition to auctioning in the long-term. Allocations should be distributed to regulated entities.

Although a free distribution based on Grandfathering has been shown to work in other cap & trade programs (i.e. Acid Rain program, NOx SIP, EU ETS) and would be relatively easy to get up and running quickly, there are problems with this method of allocation. The grandfather method can lead to distortions by rewarding large emitters, it can be open to abuse if there is not good quality data on actual emissions and it is particularly liable to lead to windfall profits when the marginal cost of carbon is factored into the selling price of all units. It normally fails to reward those that took early action or are already highly efficient. These potential negative aspects must be addressed when using a grandfathered allocation approach.

Another possible method to address the shortcomings of a free grandfathered allocation system would be partial use of auctioning for the distribution of some allocations. This could also assist in the long-term transition to a system based on full auctioning of allocations. As confidence in the auctioning process increases and governments demonstrate wise use of the revenues generated, the degree of auctioning could be increased over time.

e. How should the cap be set?

BP supports setting a cap based on the number of tons of greenhouse gases emitted—this is the best way to ensure environmental certainty.

f. Where should the cap be set for different years?

Legislation should establish short-term targets (10 to 20 yr timeframe) and long-term goals to about 2050. These targets should be aligned with a trajectory that will achieve GHG emission reductions of about 60 to 70% vs 1990 levels by 2050 and enable global emissions to remain on target for atmospheric stabilization (450-550 ppm by 2050).

g. Which greenhouse gases should be covered?

BP prefers restricting the scheme to CO₂ at the outset, because this approach is simpler and can use established processes for measurement. It is likely that the transaction costs and complexity associated with the initial incorporation of the other gases will outweigh the benefits of including them in specific programs. The program should start with CO₂ and add other gases on a case by case basis later on. It is likely that other forms of regulation may well be appropriate for some of the gases because of their specialized nature. The risk of including other gases, for which monitoring and verification may be difficult, is that it opens the whole system up to fraud and lack of confidence.

- h. Should early reductions be credited? If so, what criteria should be used to determine what is an early action?*

Companies that have shown initiative and leadership should not be disadvantaged by the regulatory program. In addition, continued early actions should be encouraged while the program is being established and until regulations are in place. Ultimately, the process for recognizing early action reduction credits is highly dependent on the regulatory program specifics (i.e. allocation methodology), the type of reductions, and the program timelines. A process should be established to insure that all early reduction credits are real, sustainable, and verifiable.

- i. Should the program employ a safety valve? If so, at what level?*

In general terms a safety valve would undermine the confidence in the market and reduce the likelihood of investments being made in long-term emission reduction measures. Experience with the Acid Rain Program, NOx SIP, and EU Emissions Trading Scheme (ETS) has repeatedly shown that a thorough understanding of emission inventories and an accurate assessment of emission reduction opportunities and associated cost is the best insurance for a stable market price. Market volatility should be managed instead using financial risk management instruments and/or offsets rather than a safety valve. However, if Congress decides to use some type of compliance cost control, it must be devised to preserve the environmental integrity of the system.

- j. Should offsets be allowed? If so, what types of offsets? What criteria should govern the types of offsets that would be allowed?*

Unlimited offsets should be allowed provided they are real, verifiable and permanent. Because of the complexities involved in creating a reliable process for offsets, this may need to be phased in over time as confidence in offsets is demonstrated.

- k. If an auction or safety valve is used, what should be done with the revenue from those features?*

The key aspect of any government program that collects funds, as part of a GHG reduction program, from regulated entities is that those funds be quickly and efficiently recycled into programs that will produce emission reductions. There may be a role for these types of funds to support program administration or centralized funding of RD&D, but governance of capital redistribution needs to be publicly accountable; have clear objectives, and operate using a process set out by legislators. It should not be subject to short term political interference in the administration of the process. The focus should be on incentives for new technology and possibly transitional assistance to help disadvantaged sectors to transition to the new economy.

- l. Are there special features that should be added to encourage technological development?*

See response to Question #1.

m. Are there design features that would encourage high-emitting developing countries to agree to limits on their greenhouse gas emissions?

The development of a robust international GHG offset market and US commitment to action would be a big first step in demonstrating how a growing economy could continue to flourish under carbon constraints. US action would drive the development of new technologies in the United States that could be exported to developing countries to reduce their GHG emissions and still meet their growing energy needs.

Question 3: How well do you believe the existing authorities permitting or compelling voluntary or mandatory actions are functioning? What lessons do you think can be learned from existing voluntary or mandatory programs?

Although there are a number of voluntary federal programs producing significant GHG reductions (i.e. EPA Natural Gas Star, EPA Climate Leaders, etc.), only a small number of companies are actually participating. These programs do illustrate that there are huge unrealized opportunities for emission reductions, but as voluntary measures they are not producing reductions of the magnitude needed to reach the reductions necessary for atmospheric stabilization of GHGs between 450 and 550 ppm. Because these are voluntary programs, many participating companies are placing themselves at a competitive disadvantage with those that choose not to participate. In addition, many companies that could be doing more are sitting on the sidelines awaiting regulatory certainty guaranteeing that their actions will be recognized in a potentially carbon-constrained business environment. Only national, economy-wide policy action will level the playing field and outline a uniform path forward.

Climate change is a long term issue and the goal must be to take urgent but informed measures that will stabilize GHG concentrations by delivering long-term emission reductions at the lowest cost. BP believes the only way to achieve the deep cuts in emissions is through a mandatory national program that can create a carbon price broadly and uniformly across the economy. This overall price signal can take form in several policy measures and may need to be enhanced in specific sectors to accelerate technology deployment or achieve coincidental policy goals (i.e. energy security).

In addition to the Acid Rain and NOx SIP Programs, one obvious place to look for practical lessons would be the EU Emission Trading Scheme. Much experience can be gained from EU ETS, which is operating essentially as intended during its "learning phase". It has made impressive progress in covering the diverse EU countries, built a transaction and verification infrastructure, and established more aggressive 2nd Phase targets. BP has 36 installations in the EU ETS covering about a quarter of our global operational emissions.

Question 4: How should potential mandatory domestic requirements be integrated with future obligations the United States may assume under the 1992 UN Framework Convention on Climate Change? In particular, how should any US domestic regime be

timed relative to any international obligations? Should adoption of mandatory domestic requirements be conditioned upon assumption of specific responsibilities by developing nations?

Any US climate program should be based on the timeline and emissions cuts necessary to achieve atmospheric stabilization of CO₂, as outlined in the IPCC Assessment Reports. The effects of climate change are global, as are the sources of GHG emissions. Success will require commitments by all of the major emitting countries. We believe that U.S. leadership is essential for establishing an equitable and effective international policy framework that will include developing nations.

Question 5: What, if any, steps have your organization's members or its individual members taken to reduce their greenhouse gas emissions? Which of these have been voluntary in nature? IF any actions have been taken in response to mandatory requirements, please explain which authority (State, Federal, or international) compelled them?

BP operates globally with business activities and customers in more than 100 countries. In 1997, BP publicly stated that we support precautionary action to limit GHG emissions, even though we recognize that aspects of the science remain the subject of expert debate. In 1998 we set voluntary targets to reduce our own emissions. By 2001, our GHG emissions were 10% below 1990 levels and we have since continued to improve our own GHG emissions performance through energy efficiency projects. We have also supported research into technological solutions to curb emissions, including establishing an Alternative Energy business in which we will invest \$8 billion over the next ten years. We see our own role as pursuing efficiency in our own operations, creating cleaner products for customers and contributing to an informed debate.

BP has operations in Europe and we have taken part in the EU Emissions Trading Scheme since its launch in January 2005. These European emissions represent around a quarter of our reported global GHG emissions, so some of our actions have been in response to the EU mandatory program. The majority of our operations are not covered by mandatory programs and our actions to reduce emissions are voluntary and driven by our belief in the need to take action now.

In 2005, our total primary energy consumption, the amount used to complete our operations, was approximately 1.31 billion GJ, 2% less than in 2004. Many of 2005's efficiency gains were made possible by a five-year, company-wide \$350-million energy efficiency program that began in 2004. This program has enabled businesses to carry out sustainable energy-reducing activities, cutting costs as well as GHG emissions, and has been so successful that we are increasing our investments in energy efficiency projects to \$450 million by 2010.

Many of BP's business activities in the areas of energy efficiency, fuel switching, hydrogen power, photovoltaics, wind, biomass, and natural sinks are providing lower carbon energy opportunities for our customers. Specifically, BP is currently focusing its efforts on:

- Gas growth in the power sector - Increasing quantities of gas are being provided to coal intensive regions, such as China and the US. For example, importation of East Siberian gas to Northern China could prevent up to 120 Mte CO₂/yr from entering the atmosphere.
- Fuel efficiency for vehicles – BP is working to provide fuel and lubricant innovations that improve vehicle efficiency, for example the introduction multigrade lubricants in the heavy truck market which can provide a 5% efficiency improvement.
- Biofuels production – BP is one of the largest suppliers of fuels containing biocomponents, and larger market penetration and blending percentages are possible in transport fuels. This requires the development of new technology and new types of “non-food” bioenergy crops. BP has partnered with DuPont to develop Biobutanol, and has funded the new Energy Biosciences Institute.

In November, 2005, BP announced that it plans to double its investment in alternative and renewable energies to create a new low-carbon power business: BP Alternative Energy. BP plans to invest \$8 billion over the next 10 years spread in broadly equal proportions between solar, wind, hydrogen and combined cycle gas turbine (CCGT) power generation.

- Carbon-free power from fossil fuel - Carbon capture and storage (CCS) offers reductions for those areas that depend on coal. BP already captures and stores 0.8 Mte CO₂/yr at In Salah, Algeria, funds a number of research activities including leadership of the Carbon Capture Project (CCP) program. Our Peterhead project in Scotland is intended to be the world's first hydrogen power station and the world's first commercial power project with CCS. It will reduce emissions by 1.3 Mte CO₂/yr.
- Photovoltaic equipment manufacturing - BP Solar has sustained 20%+ a year growth rates over the past 25 years, and is now a profitable business. Production in 2005 was 100 MW capacity.
- Wind Power – BP's wind business currently has 30 MW capacity and has the potential for significant expansion to 450 MW over the next three years.

We are happy to offer any additional assistance you may need as you craft legislation to address climate change. Feel free to contact Rachel Miller in our Washington, DC office at 202-457-6592.

Sincerely,

William Gerwing
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BP America